Concepts for Discussion

NOx Control for Stationary Sources

7/13/06

Steps to Further NOx Reduction Multi-Faceted

- Voluntary improvements & retrofits
- Ongoing maintenance and training
- Regulatory scheme & mandates

What is happening at the facility?

- Oversizing of fuel burning equipment for new more energy efficient construction
- Operators charge is keeping warm or cool and accounting office is paying fuel bill. Therefore utility operator does not see results of actions.
- No submetering of buildings, can't see thermal use
- No O&M even though LEED buildings
- New systems too complex, no training
- Didn't buy optimal system, not graphical
- No small summer boilers to meet reduced need

What could be improved?

- Is it realistic to:
  - Reduce size of fuel burning equipment
  - Give copy of fuel bill to the utility operator
  - Install submetering of buildings
  - Conduct O&M even on energy efficient systems
  - Train staff on new complex systems
  - Purchase graphical easier to read monitors
  - Install small summer boilers

Possible Tune-Up Provisions

Make and keep records of tune-ups.

Create an inspection and maintenance schedule.

Conduct inspection and maintenance including:

- Efficiency test;
- Adjust combustion process; and
- **Before and after** combustion process adjusted measure
  - concentration of NOx, CO, and oxygen in the effluent/exhaust stream
  - opacity of effluent/exhaust stream

See Handout

Possible Operator Certification

- Use existing operator certification programs
- What certifications are otherwise required currently?
- What certification programs are you currently using?

Possible Applicability

- All requirements apply:
  - Premises actuals > 25/50 tpy (25 tpy would now include Fairfield, Middlesex and New Haven)
  - Unit actuals > 137/274 lbs/day during ozone season
  - Boiler mrc > 50MMBtu/hr
  - Load response unit
- Tune-up & record keeping only apply:
  - Premises pte > 25/50 tpy (25 tpy would now include Fairfield, Middlesex and New Haven)
  - Unit pte > 137/274 lbs/day during ozone season
  - Boiler mrc 5 to 50MMBtu/hr

Possible Trading Changes

- May 1, 2009
  - By trading protocol not by order
  - No more DERC generation or use
  - Only CAIR allowances used 1:1 and 7:1
- January 1, 2012
  - Changing ratio of CAIR allowances that must be used

OTC Limits Proposed

- Evaluation of technical support is ongoing
- Your feedback is needed concerning
  - Costing for unique configurations
  - Feasibility of meeting OTC limits